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ABSTRACT

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The Three Paradigms of Mass Media Research

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Abstract

In this study the mass media research literature is examined to determine if there is a dominant paradigm in the field. The mass media research published in eight communication journals from 1965 to 1989 was content analyzed to identify paradigm, orientation (focus and theory), data (type, source and sample), method (type and manipulation) analysis and number of authors. Three paradigms were identified, but none was considered "dominant" in the Kuhnian sense. The social science paradigm accounted for over 60% of the studies, while the descriptive paradigm accounted for about 34% and the critical paradigm less than 6%.

The Three Paradigms of Mass Media Research

Higbee and Wells (1972) analyzed the use of statistical techniques in psychology journals and found it puzzling that a certain statistic was so prevalent. From this narrow finding they speculated on the more general phenomenon of how implicit assumptions guide scholars as they learn to be members of a particular research community. The set of assumptions and operating principles we follow unquestioningly have been referred to as a meta-theory or a paradigm. Kuhn (1977) defines a paradigm as a consensus among scholars or "the entire global set of commitments shared by the members of a particular scientific community" (Kuhn, 1977, p. xix). The scholars in a community use these taken-for-granted assumptions in making all sorts of practical decisions about their research. These assumptions govern the way questions are asked, the methods that are used and the criteria for what is accepted as data.

If we are to understand the nature of our research practices and the limitations of the knowledge those practices produce, we must examine our operating assumptions. However, these assumptions are difficult to illuminate. It requires a good deal of speculation to identify such abstract patterns. For example in the field of psychology, Gardner (1983) says there has been a major paradigm shift away from studying human behavior in its external manifestations and toward studying the symbolic vehicles of the human mind. What is distinctive about the research under this newer paradigm is how it looks at the way humans deploy various symbol systems in cognition and information processing.

Scholars who do speculate about the paradigms that might be operating in a given field often disagree. In sociology, for example, there are at least four paradigmatic perspectives which govern their research. Friedrichs (1970) has stated that sociology has two paradigms: system and conflict. The system paradigm emphasizes research based on the assumption that society is integrated and that people seek a consensus. In contrast, there is a conflict

paradigm where research is conducted under the assumption that society is disintegrating and that coercion is necessary to keep it intact. Ritzer (1981) regards sociology as having three paradigms: social facts, social definition and social behavior paradigms. Social facts focuses on the large scale social structures and institutions and relies on the methods of survey and history. The social definition paradigm, which relies on surveys and observation, looks at the way people define their social situations and the way those definitions influence their actions. The Social Behavior paradigm centers on the behavior of individuals, especially the ways rewards and punishments shape behavior, and gathers its data through survey and experiment. Lemert (1979) also sees three paradigms within sociology: lexical, semantical, and syntactical. The lexical paradigm takes a technical look at language. The semantical paradigm focuses on the interpretation of meaning. And the syntactical paradigm is concerned with political orientation. Eisenstadt and Curelaru (1976) consider the field of sociology as having three serial paradigms. The first was based on the view that society is a discrete system, and research focuses on psychological and ecological characteristics of people in society. But this paradigm could not account for creativity and innovation so it was replaced by a second paradigm that views society as a closed system composed of separate, but interrelated elements where one dominates (eg. Marxism). Finally there emerged a third paradigm based on a view that society is an open system where there are many interconnections and continuous feedback processes among the components of the society.

As can be seen among these sociology scholars, the speculations differ widely on several important characteristics. Friedrichs sees only two paradigms while the others see three. Friedrichs, Ritzer and Lemert seem to reject the Kuhnian idea that only one paradigm can be dominant in a field. In contrast, Eisenstadt and Curelaru accept the Kuhnian notion that when a new paradigm arises there is a revolution and the new paradigm replaces the old paradigm and makes it obsolete. And while Ritzer and Lemert agree that there

are three paradigms and that they are coexisting, they have radically different views about what these paradigms are.

Paradigms in Mass Media Studies

This diversity of views about paradigms is also broad among scholars within mass media research where there are at least six different speculations. Lowery and DeFleur (1988) and Hall (1982) say there are three sequentially ordered paradigms; Craig (1989) sees three coexisting ones; Giddens (1989) sees one; and Krippendorff (1989) and Rosengren (1989) each see none. In their review of the milestones of mass media research, Lowery and DeFleur (1988) argue there have been three paradigms in the field. First, there was the mass society paradigm that was based on the assumption that the audience was composed of a mass of people who passively received media content as if those messages were magic bullets delivering direct, unfiltered effects. Second, there was a shift to a cognitive paradigm that focused on how sensory input shapes perception, belief, attitudes, values, remembering, thinking, and action. Then in the 1970s, there was an emergence of a third paradigm where researchers operated under the belief that symbol systems (such as language and media texts) conveyed widely shared meanings about the world and people's behaviors. Called the "meaning" paradigm, it stimulated researchers to look for evidence of longer term effects, not just within people but also external to the person.

This three-phase perspective on paradigms is also in the writings of Hall (1982). He traces a "mass society" paradigm back to the 1700s when the rise of the urban commercial culture was perceived as a threat to the traditional cultural values. This became a real concern to sociologists who noticed a deep and qualitative shift in social relations among people in many advanced industrial capitalist societies during the late 1800s. This European approach used history and philosophy to make sweeping generalizations. Using speculation with some empiricism, these European sociologists regarded the media as having a direct and powerful effect on individuals. He sees a second paradigm beginning in the 1940s and dominating into the 1960s. This American

based paradigm relied more strongly on scientific methods and focused on the behavioral change of individuals as it followed a Laswellian research formula of who (control analysis) says what (content analysis) to whom (audience analysis) to what effect (audience effects). The third stage reflects a shift toward ideology and is very critical of social scientific methods of survey, experiment and reductionistic content analysis. This ideological paradigm has its foundations in linguistics and structural sociology where each culture is regarded as having a different way of classifying the world, and where cultural language and symbols induce meaning.

Craig (1989) speculates that there are three coexisting paradigms in mass media research: empiricism which seeks to explain, predict, and control observable phenomena by discovering necessary, general relationships among them; hermeneutics which seeks to understand meaningful human actions in the manner of interpreting texts, by locating them within intelligible frames; and critical theory which seeks emancipatory social change through critical reflection on social practices.

Giddens (1989) views media studies as having a single social scientific paradigm which is characterized by naturalism, social causation and functionalism. Naturalism (a term he prefers over positivism) is the notion that the social science should be modeled after the natural sciences and that the logical framework of social science addresses problems similar to those of natural science. Social causation describes the idea that social scientists are able to demonstrate that we are moved by causes of which we are unaware. Functionalism focuses on systems of behavior, and as such is modeled more after biology than physics. Giddens admits that this paradigm is being challenged and that it no longer has a consensus, but he does not explain what the evolving paradigms are.

Krippendorff (1989) says that the field is in a preparadigmatic stage. He equates this stage with naivety because he sees scholars questing for a naturalistic paradigm but not being able to achieve it because, in his opinion, there is no objective existence outside of independent, scientific

observers and those observers are not able to enter the domain of observation because doing so would taint the phenomenon they want to examine.

Rosengren (1989) seems to take the most radical approach by saying that not only is mass media studies without paradigms, but that none of the social sciences (with the possible exception of economics and linguistics) have a paradigm. But unlike Krippendorff, Rosengren moderates his position by saying that scholars have differing research traditions and schools of thought, such as the critical school and the positivist school. He says the more dominant of the two is functionalist sociology which regards science as objective and society as consensus or static.

Dominant Paradigm?

The diversity of opinion about paradigms in mass media research highlights two important problems. One of these problems is a lack of consensus over what is the dominant paradigm. Rosengren and Giddens consider the social science paradigm as being dominant over the last several decades; Craig sees the social science (empiricist) paradigm coexisting with two others; and Hall as well as Lowery and DeFleur see the critical (or meaning) paradigm as gaining ascendancy in the last decade. Krippendorff sees the field as struggling for a social science perspective but unable to meet the minimum standards so there is no paradigm, dominant or otherwise. This problem of determining the number and dominance of paradigms can be traced directly to a second, and more fundamental, problem.

The second problem is determining how to define a paradigm. A major reason for these six perspectives is that they appear to have very different operational definitions for paradigms. They may share the same conceptual definition as laid out by Kuhn, but when they get down to the operational level of providing examples for their conceptualizations, they differ markedly. Lowery and DeFleur describe the recent shift in paradigms mainly in terms of focus where research moved away from concentrating on effects and towards the process used by audience members in making meaning from particular texts. Hall distinguishes among paradigms primarily in terms of focus and

methodology. As for the later criterion, he explains that the latest paradigm shift as a move away from behavioral methods of survey, experiment and reductionistic content analysis to textual analysis. Giddens and Rosengren also use the methodological criterion as does Krippendorff in explaining his position that the field of mass media studies is preparadigmatic. Craig distinguishes among paradigms on the purpose for the research. The differences in determining what paradigms exist then can be traced in part to whether we highlight differences in the focus of the research, the methods used or the purpose.

The most fundamental criterion (among focus, method and purpose) is purpose, because it addresses the most deep-seated assumptions of researchers. Scholars can debate whether the purpose of research is to explain, describe or critique the phenomenon of mass media, but there will never be a resolution to this debate because it is a matter of preference, not fact. Then once we differentiate the research into paradigm groupings according to purpose, we can examine whether methodologies and focal areas cluster on different paradigms. These less fundamental criteria have a fair sized literature conducted within the social science paradigm. Most of this research has examined the use of methods, but some studies have also looked at the type of data, type of analysis and theory.

Methodology: Several content analyses of the research literature have focused on methodologies. For example in psychology, Christie (1965) reported finding a big shift towards experimental research when he examined 139 "prime" articles published in the Journal of Abnormal and Social Psychology in 1949 and 1959. He reported that there was a considerable increase in experimental manipulation, especially the use of multiple experimental groups. Higbee and Wells (1972) extended this work by examining the 132 articles in the 1969 edition of the Journal of Personality and Social Psychology. They found that 90% of the articles used the experiment. This dramatic change in method was viewed as an indication of a shift in paradigm based on a stronger belief in the importance of reductionistic research and a belief in researchers' ability

to identify and control relevant variables.

In mass media studies, Wimmer and Haynes (1978) analyzed the content of the Journal of Broadcasting from 1970 to 1976 and reported that the survey method was used most often (44.5%) followed by laboratory experiment (25.7%), and content analysis (21.0%). Moffett and Dominick (1987) updated this research by examining methods used in the same journal from 1970 to 1985 and found the same rank ordering among methods.

Type of Data: Content analyses that examine the use of statistics in analyzing data report a dramatic shift toward quantitative research. After analyzing the sociology research literature in the 1940s and comparing it to the literature in the mid 1960s, Brown and Gilmartin (1969) reported that the percentage of articles using quantitative analysis rose from 53% to 85%. They also reported a strong trend in sociology away from case studies toward large samples (over 10) and toward quantitative data. This trend has also been observed in psychology (Christie, 1965).

Within mass communication research there seems to be a similar trend. Schramm (1957) examined changes in mass media research from the early 1930s to the early 1950s. He reported a growth in the use of quantitative analysis from almost no quantitative articles to half of all articles published 20 years later in Public Opinion Quarterly. He said the development of research has been dramatic "from almost wholly non-quantitative research, to a fairly even balance between quantitative and non-quantitative; from an almost exclusive preoccupation with the methods and viewpoints of the humanities, to a concern with methods and problems of the behavioral sciences as well" (p. 91). Webb and Salancik (1965) reported similar findings in an analysis of Journalism Quarterly where 47% of articles in 1955 were quantitative while 62% were in 1964. Perloff (1976) examined a longer time from 1965 to 1974 in the same journal and found the same trends as did Schramm. During this later period, 60% of all articles used quantitative data. Even in the sub-area of historical journalism, Folkerts and Lacy (1985) report that 16% of this literature (n=82) used quantitative methods.

Type of Analysis: Christie (1965) reported a dramatic increase (30% to 87%) in the use of parametric statistics especially the analysis of variance in the Journal of Abnormal and Social Psychology from 1949 and 1959. Higbee and Wells (1972) reported that 80% of psychology research studies used ANOVA. Goodwin and Goodwin (1985) found 23 types of major statistical techniques presented in the Journal of Educational Psychology from 1979 to 1983. The most prevalent class of techniques was ANOVA, especially factorial ANOVA and post-hoc multiple comparisons, which appeared in over 50% of all articles. A similar trend was found by Kennedy (1988) who analyzed the articles in 67 educational research journals.

Examining mass media research, Wimmer and Haynes (1978) reported finding an increase in the use of quantitative analyses from one-third of all articles in 1969-70 to over 55% six years later in the Journal of Broadcasting. The most common statistic reported was the simple frequency or percentage (36%), followed by chi square (15%), t-test (13%) and ANOVA (11%). Moffett and Dominick (1987) updated this work and found a dramatic increase in the percentage of articles using statistics from 1970 to 1985.

Theory: It is interesting to note that there is no content analysis of the mass media research literature to determine the prevalence of theory. There is one such study in sociology --- but with an ironic twist. Brown and Gilmartin (1969) analyzed the research in sociology journals in the early 1940s and compared it to research in the mid-1960s. They reported a trend toward much more hypothesis testing and less inductive research. They also said there were fewer "theory" articles (31% down to 16%) and, in contrast, there were more "substantive" articles (up from 51% to 70%) which they define as "studies presenting empirical data on social phenomena and to papers reviewing past research or proposing new directions for inquiry" (p. 284). The percentage of articles focusing on methodology remained the same. The paradigmatic bias of these authors is apparent in the way they use the terms "theory" and "substantive" to categorize articles. Theory is not defined by them as a set of general propositions which predict or explain behavior;

rather they seem to define it as non-empirical essays. In contrast, articles that have gathered quantitative data are labelled as "substantive." They interpreted their results to mean that sociology was experiencing a growing paradigmatic bias toward reductionistic research.

It appears that mass media research is following the lead of psychology and sociology toward greater use of social scientific methods of gathering quantitative data and applying more sophisticated statistical analyses. The review above raises a question about whether or not this trend has continued through the mid to late 1980s. Also, it suggests that it would be useful to have a more comprehensive analysis of the published research that would look at the type of data, method and theory along with other indicators of paradigmatic development.

Rationale

This study will first attempt to distinguish among paradigms on the criterion of fundamental purpose rather than the focus of the study or the method. Then after being categorized by paradigm, research studies will be coded on more reductionistic characteristics of focus and method. It is the purpose of this study to use the scientific method of content analysis to answer two questions. First, is there a dominant paradigm in mass media research? Given the range of perspectives in the essays of Lowery and DeFleur, Hall, Craig, Giddens, Krippendorff and Rosengren, this study will serve as a confirmation of some of those ideas and a refutation of others. A second question is how do the less fundamental paradigmatic elements of method, data analysis, theory, etc. cluster on certain paradigms? When paradigms are categorized on purpose of the research, then focus and method should be less sharp in their discrimination among paradigms, i.e., research across different paradigms could share focus areas for example. However, the opposite may be true. It may be the case that focus and method are strongly linked to purpose so that paradigms necessarily have different foci and require different methods. Given the analysis on the diversity of viewpoints

above, it is not expected that focus and method will be strongly linked to purpose.

Paradigm Analysis

It is essential that the concept of paradigm be defined clearly and precisely enough to be used for the content analysis method, but also not reductionistic to the point where the results are so atomistic that they cannot be assembled into interesting patterns by way of answering the posed questions. Fortunately, there is a good body of literature that speculates on the paradigms that are operating in mass media research, so this provides a relatively strong starting place. This study, in essence, then becomes a confirmatory test of these speculations. Despite the range of views, there is relatively high degree of conformance on a few points. All, except for Krippendorff, see a pattern of multiple paradigms (although Giddens describes only one). All see a paradigm which variously goes by the name of social science, American behavioral, positivist, empiricist and cognitive. This is the traditional social science perspective that focuses on human behavior to make statements about hypothetical constructs such as attitudes, values, beliefs, motivations, intentions and satisfactions. These researchers use traditional social scientific methodologies of experiment, survey and reductionistic content analysis to gather data (primarily quantitative but also qualitative) from individuals (people and programs) to make generalizable statements about human behavior in the aggregate. And all, except Krippendorff and Giddens, see a second paradigm under the name of ideological, critical school and critical. This paradigm is very different from the social science one primarily because of its focus on a subjective ideological perspective at base where the purpose of research is to examine closely specific texts or industry occurrences and structure these examples in an argument for the existence of an underlying ideology governing their existence.

After conducting a pilot test, it became clear that while most studies could be classified as belonging to one of these two paradigms, there was

still a large number of studies that could not, i.e., legal, policy and historical studies. As a group, these studies shared some characteristics of both social science and critical paradigms. To illustrate, they appeared like social science studies in their attempt at explaining some aspect of the media objectively without relying on an ideological framework. However, they appeared like critical studies in their lack of interest or ability to generalize beyond the set of examples or cases cited. So we created a third category and called it descriptive. In summary, the variable of paradigm had three values: social science, critical studies and descriptive.

Research Elements Analysis

In an effort to flesh out the profiles of the three paradigms, eight additional characteristics of research studies were examined. These additional variables are categorized in four sets as follows: (1) orientation of the research (focus and motivation), (2) nature of the data (type, source, and sampling), (3) methods (data gathering and data analysis), and (4) authorship (number of authors). The codings of these eight variables were made independently of the coding for paradigms, i.e., paradigms were not defined in terms of any of these eight concepts. These additional variables allow us to test assumptions about distinctions across paradigms. For example, are certain methods and forms of sampling limited to use in only one paradigm or are they shared across several? Each of these eight variables is described below.

Orientation of the Research: The two variables that are used to address the issue of how the research in the field is oriented are: (1) focus of the research and (2) motivation of the study. The focus of the research refers to the part of the mass media phenomenon that the authors attempt to explain, describe, or critique. In mass media research the Lasswellian model of who says what to whom in what channel to what effect serves as a useful typology that was elaborated to specify nine domains as follows: media industry, personalities in the media, production of messages, message content, audience analysis, distribution of messages, effect of the media on individuals or

groups, effect of the media on institutions/society/culture, and regulation of the media.

The motivation of the research refers to the conceptual purpose of the study. Research can be motivated by a question, by an hypothesis or by a theory. It is important to determine to what extent the research is guided by theory, because more formally developed fields have a strong theory orientation and the dominant theories are used to define the research paradigm.

Nature of Data: The type of data is also important from a paradigmatic point of view because it signifies what is to be regarded as evidence in research studies. Must data be quantitative or can it also be qualitative? The source of the data would also reveal biases, i.e., to what extent is there a burden to generate primary data and to what extent is it the practice to use existing data bases? What type of sample is most often used, i.e., must it be random or is it common practice to use non-randomly generated samples?

Methods Used: What methods are most prevalent in the generation of data for mass media research? Is mass media research more like psychology with the experimental method or more like sociology with the survey method? Or is mass media research methodologically not like either of these parent social sciences? To what extent is manipulation used in mass media research? And what analytical techniques are most often used?

Expectations

It is expected that the field of mass media research will not exhibit its own unique paradigm, but instead it will appear to emulate the contiguous fields of social science (especially sociology and psychology) and this means a dominant social science paradigm. This expectation is based on the ideas of So (1986) and Paisley (1986) who report that the field of communication has the lowest impact factor of 10 social science disciplines. And Paisley shows that communication journals are net importers of information, i.e., they import more than they export. Paisley demonstrates this by showing that articles in communication journals contain more citations of research

appearing in non-communication journals than there are communication journal citations in non-communication journals.

If mass media research is strongly influenced by the operating assumptions of the contiguous social sciences, then we should expect a fairly strong theory orientation, a reliance on the methods of survey and experiment, and a prevalence of quantitative data and statistical analyses.

As for the topic of research orientation, again there is no empirical foundation in the literature for expecting a certain percentage of articles to be generated by theory. But there is a reason to expect that if mass media research attempts to be scientific and if it relies on sophisticated analytical methods to allow generalizability of results, then it should be guided in large part by theory.

As for the area of data, there should be a greater prevalence of quantitative compared to qualitative. Quantitative analysis accounted for over 80% of research in sociology by the late 1960s (Brown & Gilmartin, 1969) and over 80% of research in psychology even earlier than that (Christie, 1965). Within the area of quantitative analysis, ANOVA seems to be the most popular technique by far, at least in psychology (Higbee & Wells, 1972; Goodwin & Goodwin, 1985) and educational psychology (Kennedy, 1988). A similar trend was documented in mass media research with over 60% of the articles having quantitative data, but this research needs to be updated (Perloff, 1976; Schramm, 1957; Webb & Salancik, 1965).

An issue related to data is sampling. If mass media research is to be conducted in a scientific manner, there should be random sampling techniques employed so that the use of inferential statistical techniques would have some meaning in the analysis. The use of inferential statistics requires that the samples be gathered in a random manner so that it is possible to estimate the error around the statistics thus allowing the generalization of results.

With regard to method, the trio of survey, experiment and content analysis account for well over 90% of all research (Hoffett & Dominick, 1987; Wimmer & Haynes, 1978). This trio of social science methods should be

expected to continue its domination.

If the social science paradigm is dominant, then there should be a high prevalence of the following three elements: theoretical motivation, quantitative data generated from random samples, and a reliance statistical analysis. If mass media research is emulating the contiguous social sciences, then the research should show a prevalence of these three characteristics.

Methodology

Sample

The sampling frame consists of all full articles (not research in brief or book reports) that attempt to explain, describe or critique some aspect of the mass media and that were published in eight national referred communication journals between 1965 and 1989. The eight communication journals are: Communication Monographs, Communication Research, Critical Studies in Mass Communication, Human Communication Research, Journal of Broadcasting & Electronic Media, Journal of Communication, Journalism Quarterly, and Quarterly Journal of Speech. A systematic skip of three was used in choosing the years of 1965, 1968, 1971, 1974, 1977, 1980, 1983, 1986 and 1989. All issues published within the nine selected years were examined. Not all of these journals were publishing during this 25-year time span. Communication Research and Human Communication Research began publishing in 1974, and Critical Studies in Mass Communication began in 1984.

Units of Analysis

Fifteen variables were coded for each article. Five of these are variables which identify the article and the coder. They are journal name, year of journal, issue number, first page number of article and the coder's name. The remaining 10 variables required the coders to read the articles carefully in order to make judgments in four areas: paradigm, research orientation (focus and theory), data (type of data, source of data, and type of sample), method (type of method, manipulation and type of analysis) and number of authors. Each of these is defined below.

There were three values for paradigm: social science, descriptive and critical studies. Social science was defined as research that attempts to use observable data in order to discover generalizable patterns to explain human behavior. Descriptive studies are characterized by an attempt to convey facts in a seemingly objective (not self consciously ideological) narrative for the purpose of illuminating a relatively small set of related events. Critical studies display a purpose of examining closely a relatively small set of specific texts (message, industry, culture, etc.) in order to structure these examples as an argument for the existence of an underlying ideology governing their existence.

The focus of the investigation allowed for 10 values: media industry, personalities in the media, production of messages, message content, audience studies, distribution of messages, effect of the media on individuals or groups, effect of the media on institutions/society/culture, regulation of the media and cannot tell. Theory had three values: the article provided a clear test of a named theory, the article posed an empirical question and at least one hypothesis, or the article posed an empirical question with no hypothesis.

The type of data has four possible values: quantitative, qualitative, both or no data were used. The source of data has six possible values: direct contact with people, direct contact with media messages, direct contact with archival data, analysis of existing quantitative data base, analysis of existing qualitative data base, or reanalysis of someone else's research. The sampling variable has four values: population study with no sampling, random sample, non-random sample or unclear sampling.

The type of method refers to the procedure used to gather the data and had nine possible values: personal interviews, mail survey, telephone survey, non-participant observation, participant observation, content analysis, reliance on existing records, reliance on an existing data base, or self-administered questionnaire. Two methods were coded for those articles that used more than one method. The manipulation variable has seven possible values: no manipulation; manipulation in <u>field</u> experiment with no deception,

with deception and debriefing or with deception and no debriefing; or manipulation in the laboratory with no deception, with deception and debriefing, or with deception and no debriefing.

The analytical technique was coded in one of four levels: non-quantitative (rationalism or induction), low-level quantitative (univariate statistics), mid-level quantitative (tests of bivariate association and tests of differences), and multi-variate statistics. All codings were done at the highest level present in the article. For example, a study that used ANOVA to test differences among group means was coded as mid-level statistics even if it also presented low-level statistics (means) and might have used induction as a reasoning tool. Two codings were made for studies that used more than one analytical method at the benchmarked level.

Coding Procedure

Three graduate students were the coders. They were trained over a six month period. The training included a graduate level course in content analysis and a series of exercises in which they each coded about 500 articles. Following this experience they were involved in redefining some of the coding elements and redesigning the coding form. The new coding form was then used in the collection of the current sample.

Results and Discussion

Intercoder Reliability

A subsample of the coding (10%) was randomly selected and recoded by an independent coder. The results of the percentages of agreement are as follows: focus of the study, .93; use of theory, .94; type of data used, .97; source of data, .94; sampling method, .96; age of subjects, .89; method, .96; use of manipulation/deception, .98; and statistics, .92.

Were coders able to make reliable judgments using only this definition without many specifications about practices? This is a serious question about all content analysis and for this reason, content analyses are usually conducted in a manner to reduce the phenomena down to a point where very

little judgment is required, i.e., develop units of analysis at a very reductionistic level. This extreme reductionism is attempted to realize a goal of high intercoder reliability, i.e., high quality research. However, this practice, which is rightly criticized for being responsible for distilling out the very essence of what the researchers want to study, need not always be followed. There are times when units of analyses that require a fairly high degree of judgment can be maintained and still result in high intercoder reliability. The thinking that the two (degree of judgment and degree of reliability in judgments) are not perfectly related in a negative direction. Take the classic example of the concept "chair." Providing a clear definition that covers all examples of chair is impossible. Engaging in such an exercise is futile because it will necessarily result in a very long definition of very reductionistic parts that will suffer problems of validity as one can easily think of exceptions. However, when you show people examples of chairs and non-chairs, there is remarkable agreement. The essence of "chair" defies a reductionistic definition, but this condition does not result in low agreement among people forced to make judgments about examples of chair. The same thing can be said for the concept of paradigm in this study. Coders with an understanding of Kuhn and with the knowledge gained through several methodology classes can agree on examples of research, but still not be able to provide an exact definition to cover all examples.

Paradigm Analysis

A total of 1397 articles dealing with the mass media were found in the designated journals. Of this total, 842 (60.3%) were coded as belonging to the social science paradigm; 474 (33.9%) descriptive; and 81 (5.8%) critical (see Table 1). The social science paradigm accounts for the majority of the research, but that is not the same thing as saying it is the dominant paradigm. According to the Kuhnian perspective the "dominant" paradigm accounts for all of the research except during a brief period of revolution where a new paradigm challenges then replaces the old dominant paradigm. There is no indication in this 25 year period that one paradigm is dominant

given the Kuhnian perspective, but social science may be moving toward that status. In the early years of this analysis (1965 through 1971), the descriptive paradigm accounted for the majority of the research, but by 1974 social science research became very prevalent (by a factor of two to one) and has remained so ever since, showing no signs of waning. In 1989, over 70% of all mass media research was conducted in the social science paradigm. If this trend continues unabated, then social science will be the dominant paradigm within the next several decades.

Despite what some critical scholars say (see Hall, 1989) there is no evidence that there has been a paradigm shift away from social science toward critical studies. Of course, there are other outlets for media research. Critical scholars publish in other journals. Much, if not the majority of their work appears in journals other than the ones examined in this study. Also, the preferred medium of publication for critical scholars may be the longer form, i.e., book or monograph. So it is certain that the extent of the work of critical scholars is underrepresented in this content analysis. It is possible that a paradigm shift is taking place outside of these journals among scholars who are unable or unwilling to publish their work here. But such an argument calls into question the very nature of a paradigm. In order for a research perspective to be a paradigm in a Kuhnian sense it must clearly influence the research in the field. Those who would argue that the critical paradigm is dominant in media research must demonstrate that the research produced under that paradigm strongly influences the thinking of the majority of scholars in the field. This is difficult to do when there are so few examples of the critical paradigm in the very journals that are so widely read in the field. But in order for the work of critical scholars to have a strong influence on the thinking of the field (much less make a convincing case that their paradigm is dominant), their work must appear in mainstream publications to a greater extent. With the establishing of the ICA journal Critical Studies in Mass Communication, critical scholars had a greater opportunity to put their ideas into the mainstream of media research. But of the 47 articles

in this data base that are attributed to this journal, only 24 are critical, while 16 are descriptive and the remaining seven are social science.

Research Elements Analysis

The second question in this study is: How do research elements (such as focus, theoretical motivation, data and authorship) cluster on the paradigms?

Focus: It is important to observe that the options among the research elements were spread across all paradigms. Ignoring "Can't Tell" focus has nine different values, i.e., nine different options concerning what part of the mass media phenomenon on which scholars could focus (see Table 2). With only one exception, each paradigm displayed at least one article for each of these nine options, so we cannot say that a paradigm is limited to looking at only a sub-set of options. However, we can say that within a given paradigm, certain options for focus are more popular. With the social science paradigm, the most popular focal areas were individual effects and media content which combined accounted for 57.9% of its research. In contrast, these two categories accounted for only 13.1% of descriptive studies and 29.6% of critical studies. The two most popular topic areas for descriptive studies are regulation and industry which combined account for 44.5% of that research. The two most popular areas of critical are content and social effects (44.4%).

The paradigms did not differ much on their degree of concentration in focal areas. The critical studies and descriptive paradigms each needed four areas to account for at least two-thirds of its research, while social science needed three.

Theoretical Motivation: As for motivation of the research, there is a difference in quest for conceptual leverage which is operationalized as theory, but this means something different across the paradigms. It refers to an interest by authors to move beyond their evidence assembled for their article and make statements of a broader nature. With critical studies almost all articles (97.5%) exhibited this type of motivation. This was found to a lesser extent in social science where only 12.8% of studies attempted to generalize their results conceptually in support or refutation of a system of

explanation, i.e., a theory. More popular was a question/hypothesis motivation (29.9%) or simply asking a question with no explicit hypothesis (57.1%). In the 474 descriptive studies, only six (1.3%) acknowledged a theory as its motivation.

With social science articles, 31 different theories were named, but only eight were named more than twice. Agenda setting had 20 mentions, while uses and gratifications had 18, and cultivation 17. Diffusion theory had 11; arousal, 6; Piaget's developmental theory 5; and there were four mentions each of social learning theory and knowledge gap. Within critical studies, Marxism was named most often at 13 followed by theoretical theory, textual theory and psychological theories. Feminist theory was mentioned only once.

Data: As for type of data, the social science paradigm favors quantitative data (89.7% of social science studies relied on quantitative data exclusively), while the descriptive paradigm favors qualitative (81.4%) and 44.4% of critical studies displayed no data. There is a clear difference in the source of data where 46.7% of descriptive studies that used data relied on archival data, and in only 8.4% of descriptive studies was there direct contact with a person or media message. In contrast, social science studies predominately generated primary data (84.8%).

Authorship: Another interesting characteristic that sharply distinguishes the research among the three paradigms is the collaborative nature of authorship. In all of mass media scholarship, only about 38% of articles are jointly authored, but most of that collaboration takes place in social science studies. Single authorship is the norm in descriptive studies (82.2%) and critical studies (81.2%). But only 48.9% of social science studies are single authored and 18.1% have three or more authors.

The Social Science Paradigm

What is the profile of mass media social science research? The major focus of this research is on asking questions about the effects (33.5%) of the mass media, and almost all of these studies are oriented toward effects on individuals rather than on groups or larger social units such as society or

culture. This conforms to the trend in sociology (Brown & Gilmartin, 1969). The next largest cluster of studies is oriented toward analyzing the content of the media messages (25.7%) which does not follow any trend in other social sciences.

As for data, all the social science studies relied on some form of data, and 89.5% of them used quantitative data which indicates that the trend documented by Perloff, Schramm as well as Webb and Salancik is continuing into the late 1980s. When the source of the data is examined, we find that 84.8% of all studies used primary data especially generated for the study by the authors. But despite having a high degree of control over the data gathering, there is a surprising lack of careful sampling techniques applied. In 479 studies there was a non-random sample used and in another 35 studies it was unclear about what sampling method was used. Taken together these two categories account for 61.0% of all social science research.

The most often used method in mass media research is the survey which was used in some form in 58.0% of the social science studies. The self administered survey was used in 156 studies; the personal interview 178 times; the mail survey 106; and telephone survey, 98. Next was the content analysis which accounted for 29.7%. The experiment, which was measured with the manipulation variable, was relatively rare. Only 119 studies (14.1%) reported any manipulation. Of this number, field experiments outnumbered laboratory experiments 78 to 41. Only 20 used deception, but in only half of these were subjects debriefed.

Coders assessed the benchmark of analysis from among five levels that are ordered hierarchically. The results indicate that the benchmark is set at mid-level statistics with 52.6% of all analytical technique citations. Within this category, tests of associations (248) were a bit more prevalent than tests of differences (195). A total of 214 (25.4%) used at least one multivariate test. The most popular technique is multiple regression (86) followed by factor analysis/Q sorting (76), then partial correlations (29).

In the rationale it was argued that the social science paradigm should

be associated with three key characteristics of quantitative data, theoretical motivation and random samples. But very little (only 36 studies or 4.3%) of the social science research meets these three criteria (see Table 3). The biggest barrier toward meeting these criteria is with the theory where only 109 articles (12.9%) are theoretically motivated. Another barrier is sampling; only 227 (27.0%) of social science articles have random sampling.

As for motivation of the research, the largest category of studies included 481 articles (57.1%) that developed research questions but offered no hypotheses. With only 108 articles (12.8%) being motivated by a theory, we cannot conclude that theory is a part of the dominant paradigm of mass media research. Although there were 31 theories mentioned by name, only 11 received more than one mention and only four received more than six mentions. Almost all of these were theories that explain the effect of the media. Even with all these alternative explanations of media effects, only a small percentage of effects studies relied on one of these theories as a foundation for their research.

At first, the results on the social science paradigm in this study appear problematic. How can there be so many studies categorized in the social science paradigm, but most of these studies do not follow the textbook definitions of social science design and methodology? What first appears puzzling, is really quite simple when examined more closely. The discrepancy can be traced to the difference between purpose and practices. That is, there are many social science type studies when we identify them by their purpose. But while their purpose is clear, many fail in their execution. Because this study made a distinction in its design between purpose and practice of research, it allowed the two to be treated independently. Unfortunately, it is well documented here that most social science studies are not very careful in the pursuit of their avowed goal of explaining human behavior with generalizable statements about some externally verifiable aspect of the mass media phenomenon. Most studies only loosely follow the requirements of social science. Even in the most rigorously refereed journals, only 44 studies

(5.2%) are theoretically motivated and have either a random sample or the population of data. The most serious barrier in the way of the mass media literature being regarded as social scientific is its exploratory nature. Over 57% of this research is guided only by a question; 29.9% develops and tests hypotheses; and only 12.9% provides a test of a theory. The rare use of theory indicates that mass media research is in its infancy where questions are more prevalent than explanations. The field does not lack theory because there were 31 theories named, many of which are very respected and well known theories in related fields of study such as psychology and sociology. And there were three theories (uses and gratifications, cultivation and agenda setting) that have been formulated within the mass media research field by predominately mass media scholars and that display relatively long research traditions. Theories which explain mass media phenomena do exist and they are available to mass media scholars. But these theories (or any theories) are rarely used.

This is not to say that all the research must be guided by theory in order for mass media scholarship to be seen as social scientific. There are many uses for exploratory research to contribute to the overall nature of the scientific enterprise. Exploratory research helps in the area of benchmark studies (such as usage of new technologies and audience patterns) initial formation of concepts, measurement issues and the like. However, the field needs an orientation toward providing greater conceptual leverage if it is to be generally regarded as scientific. This means the results of a individual study should be generalizable statistically to the population, and even more important, the results should be integrated into a generalized system of explanation (a theory) beyond the tentative speculations limited to an individual research study. The field of mass media research has very little of this conceptual leverage as of the present time. It is not a problem with theory being unavailable, because there are theories about the mass media and the contiguous social sciences have multiple (and well developed) theories that are applicable systems of explanation for media related behavior and

attitudes. The problem is with a seemingly widespread perspective on the part of mass media researchers that theory testing and development is not very important.

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Table 1

Research Classified by Paradigm Across 25 Years

Year	Critical	Descriptive	Social Science	Total
1965	7	45	31	83 (5.9%)
1968	15	49	35	99 (7.1%)
1971	1	53	47	101 (7.2%)
1974	9	44	110	163 (11.7%)
1977	7	64	127	198 (14.2%)
1980	5	63	123	191 (13.7%)
1983	8	61	110	179 (12.8%)
1986	13	54	123	190 (13.6%)
1989	16	41	136	193 (13.8%)
Totals	81	474	842	1397
	(5.8%)	(33.9%)	(60.3%)	

Table 2

Comparison of Paradigms on Focus, Type of Data, Source of Data and Number of Authors

	Paradigm			
Focus	Critical	Descriptive	Soc.Sci.	Total
Industry	10	101	91	202 (14.5%)
Personalities	1	51	4	56 (4.0%)
Production	10	24	45	79 (5.7%)
Distribution	2	63	24	89 (6.4%)
Content	19	33	216	268 (19.2%)
Audience	0	14	129	143 (10.2%)
Effects - Ind	5	29	272	306 (21.9%)
Effects - Soc	17	20	10	47 (3.4%)
Regulation	7	110	20	137 (9.8%)
Can't Tell	10	29	31	70 (5.0%)
Type of Data				
Quantitative	1	15	755	771 (55.2%)
Qualitative	42	386	30	458 (32.8%)
Both	2	38	57	97 (6.9%)
None	36	33	0	69 (4.9%)
Source of Data				
Contact-People	0	13	508	521 (39.1%)
Contact-Media	14	24	206	244 (18.3%)
Archival Data	4	206	9	219 (16.5%)
Existing Quant	2	16	85	103 (7.7%)
Existing Qual	1	12	19	32 (2.4%)
Reanalysis	25	172	15	212 (15.9%)
Number of Authors				
One	69	386	412	867 (62.1%)
Two	9	73	278	360 (25.8%)
Three	1	10	103	114 (8.2%)
Four	2	2	34	38 (2.7%)
Five	0	1	12	13 (0.9%)
Six	0	2	3	5 (0.4%)
Totals	81 (5.8%)	474 (33.9%)	842 (60.3%)	1397

Table 3

Criteria for Consideration as Social Scientific

	Motivation			
Quantitative	Theory	Q & H	Q Only	Total
Random sample	34	82	109	225 (26.7%)
Population study	5	21	45	71 (8.4%)
Non-random sample	59	133	241	433 (51.4%)
Sampling unclear	5	8	12	25 (3.0%)
Qualitative				
Random sample	0	0	2	2 (0.2%)
Population study	2	0	8	10 (1.2%)
Non-random sample	1	1	14	16 (1.9%)
Sampling unclear	0	0	2	2 (0.2%)
Both				
Random sample	2	0	6	8 (0.9%)
Population study	1	2	9	12 (1.4%)
Non-random sample	0	5	25	30 (3.6%)
Sampling unclear	0	0	8	8 (0.9%)
Totals	109	252	481	842
	(12.9%)	(29.9%)	(57.1%)	